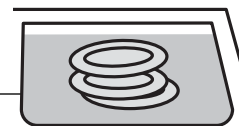


TEACHING TIPS

HOW TO SANITIZE

by Hand with Chemical Sanitizers



Learner/worker Objectives:

- To understand how cross-contamination occurs.
- To learn how to properly sanitize.

Introduction

Germs are everywhere.



Review from "Wash Hands"

Germs can live:

- In food - from animals or vegetables
- In the environment - in water and soil
- In and on people

The Food Connection

Germs can spread from one food to another.



Ask how germs can get from one food to another.

1 Germs can spread to foods when you:

- use the same cutting board or utensils for different foods
- do not clean and sanitize food contact surfaces between use
- allow juices to drip from raw Potentially Hazardous Foods onto other foods

This is called cross-contamination.

2 It's important to prevent cross-

contamination. When you keep equipment and utensils clean and sanitized, you can keep germs from spreading to food and other food contact surfaces.

Keep Food Safe

Clean and sanitize food contact surfaces.

1 All equipment you use to prepare, carry/transport and serve food must be clean.

Cleaning gets rid of everyday "soil" like spills, dried gravy, egg or ketchup.

All equipment is washed with a detergent:

- after each use
- between tasks

2 Food contact surfaces must be clean and sanitized.

When you sanitize food contact surfaces it will help reduce the number of germs to levels where they are no longer harmful.

- Surfaces must be clean so the sanitizer will work.
- Thoroughly wash and rinse cutting boards, dishes, kitchen utensils and counter tops.

3 There are two ways to clean and sanitize.

- By hand
- Or
- By machine

4 There are two ways to sanitize.

- Hot water (surface temperature reaches 160° F or higher) Or
- Chemicals

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TEACHING TIPS FOR SANITIZE BY HAND

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How to Sanitize by Hand with Chemical Sanitizers



Distribute and Review "How to Sanitize by Hand with Chemical Sanitizers"

1

There are three common types of chemical sanitizers that have been approved by FDA and EPA for use with food contact surfaces.

- Chlorine
- Quaternary ammonium compounds
- Iodine



Show and name the sanitizer you use.

IF YOU USE

- **Chlorine** - Explain that regulations require "Institutional Bleach" which :
 - Is approved for use with food equipment and utensils
 - Has a label with instructions for use to include water temperature, concentration and contact time.

Some food establishments may use household bleach. Household bleach:

- does not have instructions for use with food equipment and utensils
- may contain other ingredients or fragrances that are not permitted (only sodium hypochlorite is permitted)

The sanitizing solution must be tested to ensure that the concentration is between 50 and 200 ppm.

- **Quaternary Ammonium Compounds (Quats)**
 - Read the label and follow your product's directions for water temperature, concentration and contact time

• Other Chemicals

Explain that these must have been EPA approved and listed for use with food equipment and utensils in 40 CFR 180.940

- Read the label and follow this product's directions for water temperature, concentration and contact time

2

When you follow these four steps, the number of germs on food contact surfaces will be reduced to a level so they are safe to use.

FIRST

Make the sanitizing solution:

- Read the label
- Follow the directions for concentration, water temperature and contact time
- Mix the chemical with the water according to the directions



Show container, label, and indicators for chemical and water levels or measures

SECOND

Use a test strip to check the strength of the sanitizing solution

- If it is too weak, the solution will not kill the germs
- If the solution is too strong it will leave a chemical residue that can contaminate the food and you



Show how to use the test strip and how to compare the colors on the strip and the container

TEACHING TIPS FOR SANITIZE BY HAND

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THIRD

For pots, pans, dishes, cutting boards and other kitchen utensils, use a 3-bay sink and follow these 4 steps:

1. Wash in hot soapy water.
2. Rinse in clean water.
3. Dip in sanitizing solution at the recommended concentration, temperature and contact time
4. Allow the items to air dry.

For countertops, tables or stationary equipment, use the same 4 steps:

1. Wash in hot soapy water.
2. Rinse with clean water.
3. Wipe or spray with sanitizing solution
4. Allow the item to air dry.

For countertops, tables or stationary equipment, use the same 4 steps:

5. Wash in hot soapy water.
6. Rinse with clean water.
7. Wipe or spray with sanitizing solution
8. Allow the item to air dry.



Demonstrate your equipment and procedures. Allow staff to practice proper cleaning and sanitizing.

If you use moist wiping cloths

Store the cloths in clean sanitizing solution between uses.

FOURTH

Monitor the concentration of the sanitizer.

The strength of sanitizing solutions will change over time. The more you use the same solution to sanitize equipment the less effective it becomes. It's important to check the sanitizing solution frequently to make sure it stays clean and tests at the proper strength. Use the test strip. Replace sanitizing solution as needed.

Resources and Fact Sheets

Use the following resources and fact sheets for more information:

- **2013 FDA Food Code**

<https://www.fda.gov/food/fda-food-code/food-code-2013>

- **Food & Drug** 21 CFR 178.1010
- **Environmental Protection Agency** 40 CFR 180.940

- Massachusetts Department of Public Health website <https://www.mass.gov/orgs/food-protection-program>

- UMass Extension Nutrition Education Program <https://ag.umass.edu/nutrition>

- Massachusetts Partnership for Food Safety Education www.mafoodsafetyeducation.info

SANITIZER 11/21